November 5, 2004

Department of Ecology Attn: Cheri Peele PO Box 47600 Olympia, WA 98504

Re: Draft PBDE Chemical Action Plan

Dear Department of Ecology Members:

We support your efforts to protect human health and the environment. We are writing to voice our concern on your recommendation to completely prohibit the manufacture, distribution, and sale of new products containing PBDEs. We are especially concerned of the impact that may have on the manufacture of durable goods (consumer and commercial products) using recycled plastics.

MBA Polymers recycles plastics from a range of consumer electronics that contain plastics with Octa-BDE and Deca-BDE. We convert the raw material to high value engineering plastics for reuse in similar applications. This is a relatively new industry, and MBA Polymers is at the cutting-edge of developing postconsumer engineering-grade plastics that have been successfully reused in the manufacture of new consumer electronics. Our impact on the plastics industry has been featured in nearly 100 articles and TV stories.

We want to alert the Department of Ecology and the Department of Health to the unintended consequences of prohibiting the use of products containing PBDEs. The ability to recycle plastics for the postconsumer market is a complex process. In evaluating the Draft PBDE Chemical Action Plan, we are particularly concerned about the following real-world scenario as a plastics recycler:

- PBDEs are melt-blended into plastics reacted into the polymer backbone, or dispersed into plastics.
- Octa-BDE and Deca-BDE -- which is used in TV cabinets, computer housings, electronic circuit boards and business machines -- is present in many plastics used in consumer electronic products. <u>It is very difficult if not impossible to completely segregate them (plastics with Octa-BDE and Deca-BDE) from the general plastic waste stream from electronics, appliances, etc.</u>
- If the use of PBDEs were completely prohibited today, without allowing for small allowances stemming from recycled plastics, it would be virtually impossible to implement cost-effective consumer electronic recycling programs and the legislation

- would substantially undermine the market for recycled material in durable goods applications.
- The legislation would also make it economically impossible for manufacturers to use recycled plastics recovered from consumer electronics in new products because PBDEs are present in essentially all of these streams. Many US manufacturers are increasing their use of recycled plastics and depend on these feedstocks to continue to grow these programs. These programs, in turn, help sustainable manufacturing, lower greenhouse gases, reduce energy consumption (our plastics manufacturing requires less than 10% of that required to make the same amount of virgin plastics), help the manufacturers remain competitive in the marketplace, and reduce material being sent to landfills or incinerated. And finally,
- If we can't recycle these plastics, new plastics must be made to meet the needs of manufacturers, which will result in use of much more precious energy, increased greenhouse gas generation and higher costs to manufacturers. We don't think that this is the intent of the legislation.

At the end of its life cycle, most plastics from consumer electronics are disposed of in landfills, incinerated with other waste streams, recycled, or exported to other countries. Clearly, the most environmentally sound option is to recycle the plastic from these products. From a practical matter, banning the reuse of plastics containing Octa-BDE and Deca-BDE domestically does not solve the problem because it facilitates the export of these plastics to countries without restrictions that, in today's global marketplace, are often the ones that make new consumer electronics and other plastic products that are then sent back to the US.

Until consequences such as this can be prevented, we cannot support your recommendation to completely prohibit the manufacture, distribution, or sale of new products containing PBDEs. It is important to recognize that products that are in use today – televisions, computers and home appliances – will be a part of the consumer electronics waste stream for the next 10-20 years. We hope that you understand our concerns from the perspective of a durable goods recycler and further consider the disposition of recycled plastics containing PBDEs. We believe that reuse of this plastic is an environmentally sound solution considering today's alternatives.

Please contact us if we can provide you with additional information.

Sincerely,

Darren F. Arola

Dr. Mike Biddle Chief Executive Officer

1/5 Biddle

Dr. Darren F. Arola Director - Product Development and Sales